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ADDITIONS TO KNOWLEDGE OF THE ARGYROLAGIDAE (MAMMALIA, MARSUPIALIA) FROM THE LATE CENOZOIC OF ARGENTINA

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ABSTRACT. A recent monograph of the Argyrolagidae is supplemented by observations on specimens not previously seen by the author. The holotype of *Argyrolagus palmeri* confirms previously published data. An additional specimen of *Argyrolagus scagliai* adds to knowledge of the coronal pattern of lower molars. *Argyrolagus parodii* is a hitherto dubious species the holotype of which was destroyed. A second specimen is made neotype; it validates the species and permits redefinition.

A monograph of the Argyrolagidae (Simpson, 1970) was completed early in 1968 and an addendum included late in that year. Early in 1970 a visit to Argentina made possible the study of several specimens not available or not known to me when the monograph and addendum were written. These add significantly to knowledge of the family.

For the facilities for making and the privilege of publishing these observations I am greatly indebted to the authorities of the Museo de La Plata and especially to Dr. Rosendo Pascual and Sr. Jorge Zetti. The accompanying photographs were made under the direction of Sr. Zetti and provided for this publication by the Museo. In Buenos Aires Sr. Guillermo del Corro courteously made available the type of *Argyrolagus palmeri*. The drawing was made by RaVae Marsh from a sketch by me. While making this study I was employed jointly by Harvard University and the University of Arizona.

In the following all measurements are in millimeters: L = length (anteroposterior or mesiodistal). W = width (bucco-lingual). L_a = length of trigonid. L_p = length of talonid. W_a = width of trigonid. W_p = width of talonid. MACN = Museo Argentino de

Ciencias Naturales "Bernardino Rivadavia." MLP = Facultad de Ciencias Naturales y Museo de La Plata. MMP = Museo Municipal de Ciencias Naturales de Mar del Plata.

Family Argyrolagidae Ameghino, 1904

Genus *Argyrolagus* Ameghino, 1904

Argyrolagus palmeri Ameghino, 1904

Holotype. MACN A53-4, part of left mandibular ramus, originally with I_1 and M_{1-4} , collected by Carlos Ameghino at Monte Hermoso in 1904.

Remarks. For other formal data see Simpson, 1970: 11. When that account was written I had not seen the type, which is in the Ameghino Collection in Buenos Aires and catalogued as above. I_1 has been lost since the specimen was figured by F. Ameghino (1906, fig. 221) and L. Kraglievich (1931, fig. 2). Both of those figures represent the specimen accurately. New measurements on the specimen agree reasonably well with those taken from the earlier figures (given in Simpson, 1970, Table 1), see present Table 1.

Argyrolagus scagliai Simpson, 1970

Addition to hypodigm. MPL 49-IX-7-1, right mandibular ramus with alveoli of I_{1-2} and P_3 and all of M_{1-4} . "Miramar, prov. de Bs. Aires," probably Chapadmalal formation. Presented to the MLP by the widow of Dr. Santiago Roth in August, 1924.

Description. For formal data on the species see Simpson, 1970: 12. This specimen has M_{1-4} beautifully preserved and less worn than in others known. In this genus the hypselodont molars rapidly lose the coronal pattern by wear and become columns with characteristic outline but no internal structure. Here even M_1 , although somewhat worn, preserves some coronal features. M_4 is also fully erupted and beginning to wear. The teeth do not taper in the alveoli and would not increase in size with wear. The dimensions of the exposed ends of these young teeth are comparable with those of old individuals of the species (see Table 2). All the molars retain traces of a fossettid in the trigonid. M_1 has a somewhat more complex outline than in other, individually older specimens considered to be of the same species (see Fig. 2). Most of the crown is horizontally truncated by wear, but there is a steeply sloping anterolingual wear facet. On the anterior face

there is a well-developed cingulum, not yet worn, enclosing a small pocket. The preservation makes possible separate trigonid and talonid measurements in Table 3.

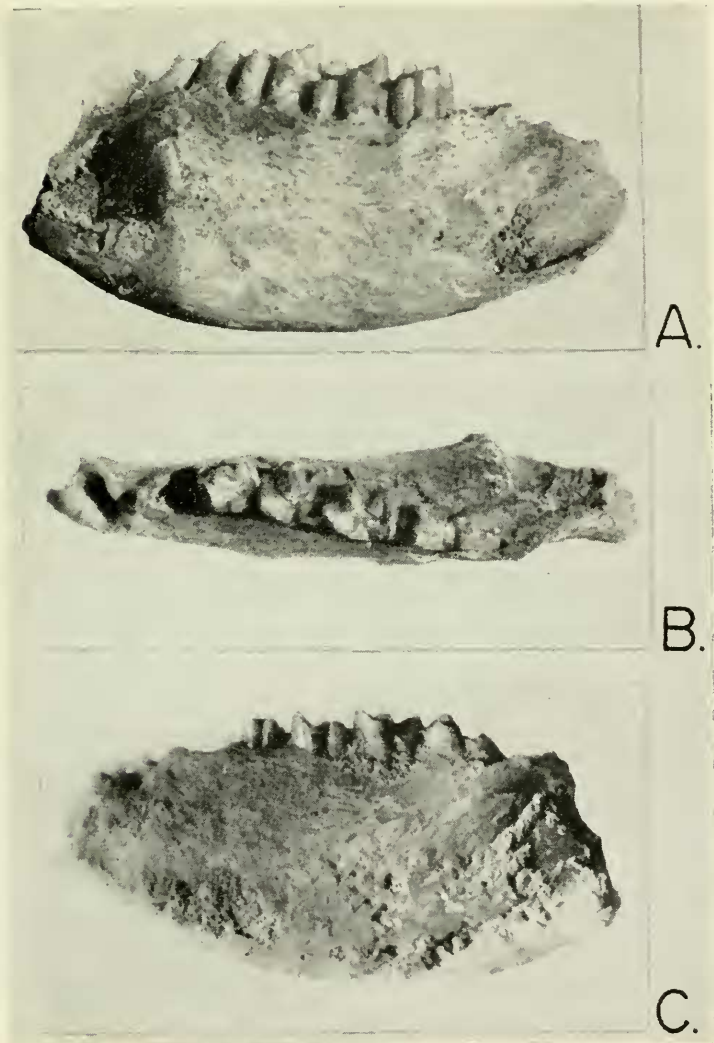


Figure 1. *Argyrolagus scagliai* Simpson, 1970. M.L.P. No. 49-IX-7-1, right mandibular ramus with M_{1-4} . A, buccal view. B, occlusal view. C, lingual view. Approximately $\times 4\frac{1}{4}$.



Figure 2. *Argyrolagus scagliai* Simpson, 1970. M.L.P. No.49-IX-21, right M_1 . Occlusal view, diagrammatic sketch. Approximately $\times 10$.

Argyrolagus parodii Rusconi, 1933

Neotype. MLP 62-VII-27-81, right mandibular ramus with I_1 , alveolus of I_2 , and P_3 - M_4 , from the Playa las Palomas, near the Balneario Chapadmalal. Collected by the personnel of MLP in August, 1961.

Revised diagnosis. Smaller than *A. palmeri* or *A. scagliai*. Trigonids somewhat more triangular, paraconids medial. Talonids relatively short. Labial and lingual sulci directly opposite. Talonid of M_1 somewhat reduced, but decidedly larger than in *Microtragulus*. Buccal extension of coronoid crest strong.

Discussion. In a letter written shortly before his lamented death, Sr. Rusconi informed me that the holotype of this species, in his private collection, had been destroyed. The available figures and description of that holotype are somewhat equivocal, as discussed in Simpson, 1970: 14-15. There is little doubt, however, that MLP 62-VII-27-81 does belong to the same species. It is very close to the size indicated by Rusconi in text and figures, as here shown in Table 4, and it also shares the most likely morphological distinctions of the holotype. The present specimen can be confidently referred to *Argyrolagus* and it shows that *A. parodii* is distinct from any other known species—both points left in some doubt by the destruction of the holotype. This case meets all the conditions for designation of a neotype set forth in Article 75(a) of the International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology, and the present treatment supplies all the qualifying conditions specified in Article 75(c) of the Code.

The locality where the holotype was found is not precisely known but was somewhere along the shore four or five kilometers

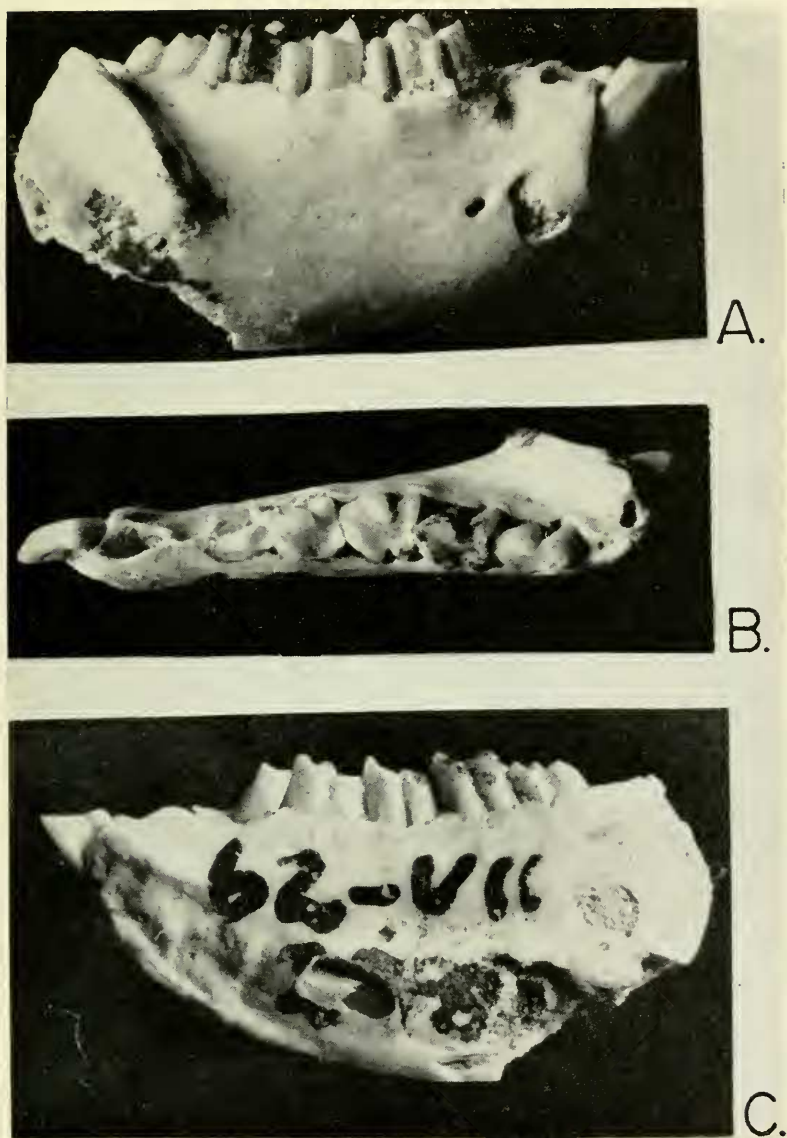


Figure 3. *Argyrolagus parodii* Rusconi, 1933. Neotype, M.L.P. No. 62-VII-27-81, right mandibular ramus with I_1 and $P_3 - M_1$. A, buccal view. B, occlusal view. C, lingual view. Approximately $\times 6$.

northeast of Miramar, Buenos Aires Province. The neotype is from the same sequence of exposures on the shore about $12\frac{1}{2}$ to $13\frac{1}{2}$ kilometers farther northeast. The holotype was probably from the Chapadmalal formation, as restricted, but possibly Vorohué. (See J. L. Kraglievich, 1952.) There is no clearly



Figure 4. Argyrolagidae, genus and species undetermined. M.L.P. No. 59-IX-28-98, right tibiofibula lacking unfused portion of fibula. A, lateral view. B, anterior view. C, medial view. D, posterior view. Approximately $\times 2$.

established difference between the faunas of the two formations. The neotype is almost certainly from the restricted Chapadmalal formation. The two are probably of the same age, and in any case can hardly have a faunally appreciable difference in age.

The specimen now made neotype of *Argyrolagus parodii* is the one figured, without catalog reference, as *Microtragulus argentinus* by Ringuelet (1966, plate X, figs. I, J) and used as a basis (*Ibid.*, pp. 58-59) for redefinition of the genus *Microtragulus* (taken as a synonym of *Argyrolagus*) and the family Microtragulidae (equated with Argyrolagidae). As previously pointed out (Simpson, 1970: 65-67), the redefinitions are valid for the specimen in question but are too restricted for the genus and family as wholes.

The preceding diagnosis and accompanying measurements (Table 4) and photographs (Fig. 3) make detailed description unnecessary.

Argyrolagidae gen. et sp. indet.

MLP 59-IX-28-98 is a tibiofibula lacking the free part of the fibula, collected by Dr. J. Frenguelli from the "Chapadmalense" of Baliza Chica, northeast of Miramar. At this locality it would be either from a very high level in the Chapadmalal formation, restricted, or from the overlying Vorohué formation. Its length is 53.5 mm, compared with 60.4 mm for MMP 7855, holotype of *Argyrolagus scagliai*. It also differs from the latter in that the proximal part of the cnemial crest ends abruptly slightly below rather than at the articular surfaces and also ends abruptly distally rather than passing gradually into the shaft. This specimen may belong to *Microtragulus reigi*, but association cannot now be established.

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TABLE 1

Measurements of teeth of holotype of *Argyrolagus palmeri*

	M ₁		M ₂		M ₃		M ₄		LM ₁₋₄
	L	W	L	W	L	W	L	W	
MACN A53-4	1.9	1.1	2.1	1.3	2.0	1.3	2.0	1.1	7.8

TABLE 2

Comparative measurements of teeth of *Argyrolagus scagliai*

	M ₁		M ₂		M ₃		M ₄		LM ₁₋₄
	L	W	L	W	L	W	L	W	
Holotype, MMP 7855	1.7	1.4	2.0	1.7	2.0	1.6	2.2	1.2	8.5
MLP 49. IX. 7.1	1.8	1.7	2.3	1.9	2.3	1.8	2.2	1.4	8.6

TABLE 3

Trigonid and talonid measurements of *Argyrolagus scagliai*, MLP 49.IX.7.1.

M ₁				M ₂				M ₃				M ₄			
L _a	L _p	W _a	W _p	L _a	L _p	W _a	W _p	L _a	L _p	W _a	W _p	L _a	L _p	W _a	W _p
1.2	0.6	1.6	1.7	1.4	0.9	1.9	1.9	1.5	0.8	1.8	1.6	1.3	0.9	1.4	1.3

TABLE 4

Measurements of destroyed holotype of *Argyrolagus parodii*, from text and figures of Rusconi, and of neotype MLP 62-VII.27.81.

	M ₁		M ₂		M ₃		M ₄		LM ₁₋₄
	L	W	L	W	L	W	L	W	
Holotype:									
Rusconi, 1933, text	—	—	—	—	1.9	—	1.3	—	—
Rusconi, 1933, fig. 1a	—	—	—	—	1.8	1.6	1.6	1.2	—
Rusconi, 1936, fig. 12	—	—	—	—	1.6	1.4	1.6	1.2	—
Neotype	1.6	1.4	1.8	1.5	1.7	1.4	1.7	1.1	6.7